Workshop on the Summer 2005 Electricity Supply and Demand Outlook

Comments on Demand Response & Interruptible Programs

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Interruptible Programs, also called "Reliability-triggered" programs, are triggered when MWs are needed quickly (day-of or hour-of)

- **Interruptible programs have been in existence since the 1980s.**
  - Non-firm or I-6 programs
  - Direct Load Control – eg. AC cycling
- **In 2000-01, the CPUC authorized several new interruptible programs, but participation in these new programs has been modest.**
  - Base Interruptible Program (BIP)
  - Optional Binding Mandatory Curtailment (OBMC)
  - Scheduled Load Reduction Program (SLRP)
  - Rolling Blackout Reduction Program (RBRP) – Backup Generators
- **Interruptible programs are considered reliable resources given their lengthy track record, and their design: customers must reduce contractually-specified amounts of demand or be hit with substantial penalties.**

The CPUC Has Been Authorizing New Demand Response Programs since 2003[1]

- The Energy Action Plan calls for dynamic voluntary price-triggered programs that would reduce peak demand by 1,500 to 2,000 MW by 2007

- For 2005, the IOUs were directed to attain the following MW goals for price-triggered DR programs.

PG&E	SCE	SDG&E
450 MW	628 MW	125 MW

- Programs that are triggered on a day-ahead basis count towards the attainment of these goals, while interruptible programs do not.

[1] In collaboration with the California Energy Commission.

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- **'Day-ahead' programs provide participants a one-day notice that demand response is needed.**
  - Voluntary Critical Peak Pricing
  - Demand Bidding Program
  - CPA's Demand Reserves Partnership

- **Programs that encourage or pay for decreased usage:**
  - 20/20 programs
  - IOU Participation in **'Flex Your Power Now'**

- **In January 2005, the Commission authorized modifications to the day-ahead programs (and some interruptible programs) for MW goal attainment as well as securing additional MWs for this summer.**

The Summer 2005 Staff Report provides Reasonable Estimates of Interruptible and Demand Response MWs currently available

- The purpose of Table 9 is to provide a conservative estimate, "the least amount" of Interruptible and Demand Response MWs we can expect.
- In comparison, the IOU's DR monthly reports provide MW estimates that are significantly higher than Table 9 – show the maximum potential MWs of the programs
  - Example: SCE's January 2005 report has an estimate of 1,312 MWs (in comparison to Table 9's 960 MWs for SCE)
- CEC staff's underlying methodologies for Table 9 are reasonable; minor differences with CPUC staff's estimates (<100 MWs):
  - Example: 72 MWs of SCE's DBP MWs: too optimistic
- New DR programs (CPP, DBP) are difficult to estimate. Limited data and experience available.

Table 9: Existing Interruptible and Demand Response Programs[2]

CPUC Programs	PG&E	SCE	SDG&E	Total
Interruptible/Curtailable	342	595	2	939
Demand Bidding	39	72	1	112
Critical Peak Pricing	12	6	5	23
Power Authority Demand Response	200	31	5	236
Direct Load Control	45	256	2	303
Backup Generators	-	-	17	17
Total	638	960	32	1,630

[2] CEC's Summer 2005 Electricity Supply and Demand Outlook, Staff Draft Report